

Title (en)
REFRIGERATION DEVICE

Title (de)
KÜHLVORRICHTUNG

Title (fr)
DISPOSITIF FRIGORIFIQUE

Publication
EP 3663681 A4 20210407 (EN)

Application
EP 18841329 A 20180803

Priority
• JP 2017150798 A 20170803
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Abstract (en)
[origin: EP3663681A1] The present disclosure provides added safety to a refrigeration apparatus. The air conditioning system (100) includes: a refrigerant circuit (RC) including a use-side circuit (RC2), a heat-source-side circuit (RC1), and a refrigerant release circuit (RC3); a refrigerant leakage detection unit (a refrigerant leakage sensor (50) and a refrigerant leakage determination unit (74)) that detects leakage of refrigerant in the use-side circuit (RC2); a heat-source-side fourth control valve (22) that enables, when being in an opened state, the heat-source-side circuit (RC1) to communicate with the refrigerant release circuit (RC3); a refrigerant release mechanism (21) that is disposed in the refrigerant release circuit (RC3) and enables, when being in a first state (an open state), the refrigerant release circuit (RC3) to communicate with an external space to release refrigerant; and a controller (70). When no leakage of refrigerant in the use-side circuit (RC2) is detected, the controller (70) controls the heat-source-side fourth control valve (22) to a closed state. When leakage of refrigerant in the use-side circuit (RC2) is detected by the refrigerant leakage detection unit, the controller (70) switches the heat-source-side fourth control valve (22) to the opened state and causes the refrigerant release mechanism (21) to shift to the first state. The refrigerant release mechanism (21) is a rupture disk that shifts to the first state when a pressure in the refrigerant release circuit (RC3) becomes equal to or greater than a first threshold value ($\Delta Th1$).

IPC 8 full level
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CPC (source: EP US)
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Citation (search report)
• [IA] JP 2010002137 A 20100107 - DAIKIN IND LTD
• [IA] EP 1584506 A1 20051012 - TGK CO LTD [JP]
• See references of WO 2019027050A1

Designated contracting state (EPC)
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